U.S. Fish & Wildlife Service

# Willamette Valley

National Wildlife Refuge Complex

Ankeny / Baskett Slough / William L. Finley







# Preserving Wildlife Habitat

Created in the 1960's, the primary management goal of the Willamette Valley Refuges is to provide wintering habitat for dusky Canada geese. Unlike other Canada geese, duskies have limited summer and winter ranges. They nest on Alaska's Copper River Delta and winter almost exclusively in the Willamette Valley.

Today, the Willamette Valley is a mix of farmland and growing cities, with fewer acres remaining for wildlife. Many of these habitats are being restored and managed on the three Willamette Valley NWRs: Ankeny, Baskett Slough and William L. Finley.

Above: Oak woodland habitat on Baskett Butte

Below: Alaska's Copper River Delta



# Managing for Geese

The Willamette Valley Refuges provide dusky Canada geese with what they need to survive during the fall and winter and make the trek back to Alaska in the spring.

Food

Under cooperative agreements with local farmers, fields are planted to provide nutritious grasses preferred by the geese.

Water

The geese need water for resting and foraging habitat. Many refuge wetlands occur naturally while dikes and levees impound water to create others.

#### Protection

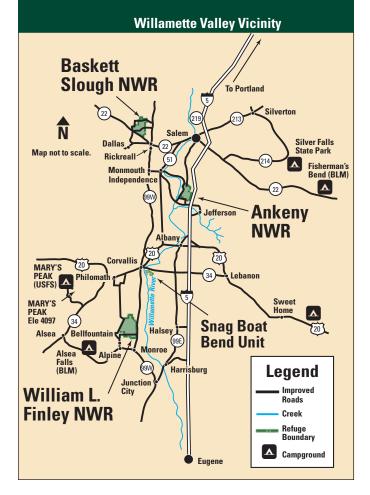


Dusky Canada Goose USFWS, Aaron Drew

Right: Canada geese feeding on agricultural crop

McFadden Marsh on Finley NWR provides resting habitat for geese. By resting in undisturbed areas on the refuges, wintering geese replenish their energy reserves required for migrating and nesting. This sanctuary also reduces crop depredation problems on surrounding agricultural lands.





#### **Rare Habitats**



The three refuges in the Willamette Valley protect some of the last remaining historically abundant habitats and plants once found throughout this valley.

Wet prairie was once the most widespread habitat type in the Willamette Valley. Wet prairie habitat supports grassland birds, such as the western meadowlark, streaked horned lark and Oregon vesper sparrow. Several threatened and endangered plant species can be found in this type of habitat.



This blue goose, designed by J.N. "Ding" Darling, has become the symbol of the National Wildlife Refuge System.





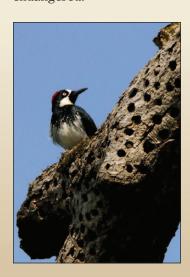
Historically, oak savanna was the primary habitat type occurring on uplands of the Willamette Valley. The cavities of large Oregon white oak trees provide vital nest sites for cavity nesting birds such as the acorn woodpecker and white breasted nuthatch. Associated with this habitat are rare plants such as Kincaid's lupine and golden paintbrush, which are listed as threatened or endangered.

Top: Oak savanna habitat/USFWS, Chantel Jimenez

Above left: Oregon white oak leaf with acorns

Left: Common camas

Right: Acorn Woodpecker ©Ray Foster



### Wildlife Seasons

### Spring

Visiting the Refuges in the Willamette Valley is rewarding year round. Each season brings new opportunities to see new things.



 $\begin{array}{c} \textit{Pacific tree frog} \\ \texttt{©Ray Foster} \end{array}$ 

As the weather warms up, pacific chorus frogs and red-legged frogs start calling and rough-skinned newts begin the overland trek to spawn in open water. Wintering waterfowl, such as northern pintails and greenwing teal will remain on the refuges in early spring. Songbird migration peaks in early May coinciding with the height of spring wildflowers like common camas and Oregon irises.

Pintails on refuge wetland  $\bigcirc$  Ray Foster



#### Summer



Common Yellowthroat USFWS, Dave Menke

Female mallard with two ducklings ©Ray Foster Mallard, hooded merganser, and wood duck broods appear on refuge wetlands. Black-tail deer with fawns in fields and common yellowthroats and marsh wrens can be seen and heard along wetland edges. California quail are commonly seen near hedgerows on refuge roads.



Fall



Songbirds start to migrate south in late August and flocks of geese and ducks begin to arrive on refuge wetlands throughout October.

Roosevelt elk can occasionally be heard bugling at William L. Finley NWR at dawn and dusk. Sightings of migratory raptors increase throughout September. Rough-legged hawks arrive in November as turkey vultures depart.

Rough-legged hawk/USFWS, Maura Naughton



Roosevelt elk on refuge field ©Ray Foster

### Winter



River otter
©Paul Farrell

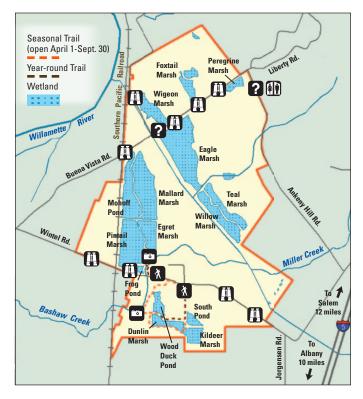
Thousands of geese, ducks, and swans can be seen feeding on refuge fields and wetlands. Bald eagles and the occasional peregrine falcon can be seen hunting these wintering flocks. River otters can be seen playing in the high waters of Muddy Creek or McFadden Marsh on William L. Finley NWR. Coyotes and bobcats search refuge farm fields for their next meal.



Flock of Canada geese on Ankeny NWR/@Ray Foster

# **Ankeny NWR**

Ankeny NWR contains 2,796 acres of flat to gently rolling land located near the confluence of the Willamette and Santiam Rivers. The refuge's farmed fields, wetlands, and riparian forest provide a variety of wildlife habitats.



How to Get There

Travel north 10 miles from Albany or south 12 miles from Salem on Interstate 5. Take exit 243, Ankeny Hill Road, and drive west ¼ mile to an intersection. Turn right and proceed 1.5 miles on Ankeny Hill Road to the information kiosk and viewing area.

# $\begin{array}{c} Visitor \\ Opportunities \end{array}$

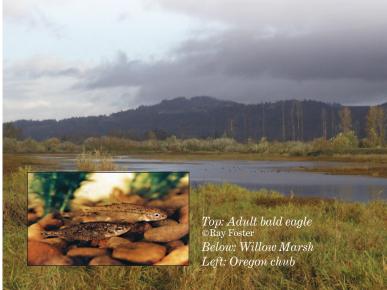
Ankeny NWR has boardwalks, trails and observation blinds that take you closer to the wildlife on the refuge. Interpretative panels along trails, at kiosks and parking areas describe different wildlife and habitats found on the refuge.



Did You Know...

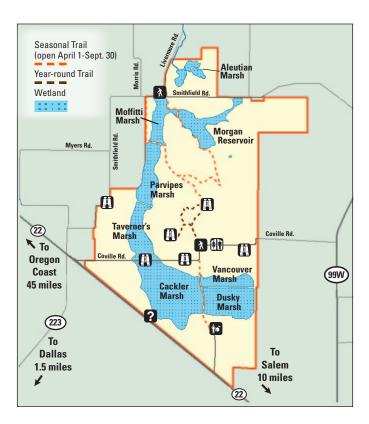
... that an eagle's eyesight is four times better than a human with perfect vision? This means that an eagle can probably identify a rabbit moving a mile away....

... that the Oregon chub was listed as endangered in 1993? Restoration work on Ankeny NWR provided habitat for the Oregon chub to be introduced into Willow Marsh.



# **Baskett Slough NWR**

Baskett Slough is the most northerly of the three Valley refuges. It includes 2,492 acres of farmed fields, rolling oak covered hills and shallow wetlands. Dusky Canada geese usually appear here first in the fall, and use the refuge as their last rest stop before heading back to their Alaska nesting grounds in the spring.



How to Get There

Travel west three miles on Highway 22 from the intersection of Highways 22 and 99W, north of Rickreall. Watch for the information and wildlife viewing area on the right.

Visitor **Opportunities** 

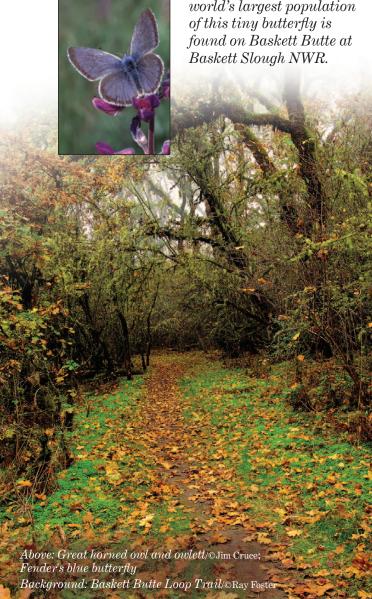
Baskett Slough NWR has numerous hiking trails. The kiosk off Highway 22 has interpretive panels and a spotting scope to view wildlife.

#### Did You Know...



... that of all the owls, the great horned owl has the strongest talons? About 30 pounds of force is required to release the owl's grip on an object.

... that Fender's blue butterfly was once thought to be extinct? One of the world's largest population



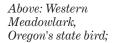
## William L. Finley NWR



The 5,325 acres of the William L. Finley NWR protects examples of Willamette Valley's historic habitats including Oregon white oak savannas, bottomland ash forest and native prairie. Over 230 species of birds have been recorded on the refuge.

How to Get There

Travel south 10 miles from Corvallis or north 7.5 miles from Monroe to mile marker 93 on Highway 99W. Watch for refuge entrance signs along roadsides.



Right: Cabell Marsh Overlook







# Visitor Opportunities

William L. Finley has over twelve miles of hiking trails. The auto tour route on Finley Road and driving along Bruce Road are great ways to view geese and ducks during the wet winter months.

Woodpecker Loop Trail

Did You Know...



Photo courtesy of Oregon State University Achieves Department ...that the refuge was named for William L. Finley, an early conservationist and photographer; who persuaded President Theodore Roosevelt, to set aside the first National Wildlife Refuge west of the Mississippi River?

... that the historic Fiechter House built in 1855 is considered one of the oldest remaining homes in Benton County?



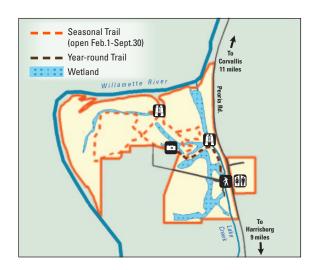
### Snag Boat Bend Unit



Riparian habitat along Lake Creek / USFWS, Chris Seal

Located on the east side of the Willamette River in Linn County, Snag Boat Bend is a small unit of William L. Finley NWR that provides vital habitat for many wildlife species. A variety of songbirds breed on the Refuge in the spring and wading birds feed year round in the backwater sloughs. The 376 acres that encompasses the Refuge are a blend of riparian forest, backwater sloughs and seasonal wetlands.

The Nature Conservancy bought the land in 1998 and sold it to the U.S. Fish and Wildlife Service in 2000. With the help of volunteers, trail building and habitat restoration projects were completed and the refuge was opened to the public in May 2003.



How to Get There

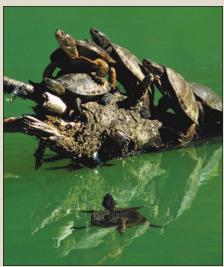
Travel east from Corvallis on Highway 34 to Peoria Rd. Go south on Peoria Rd for 11 miles. Watch for entrance signs along the roadside.

 $\begin{array}{c} Visitor \\ Opportunities \end{array}$ 

Snag Boat Bend provides wonderful wildlife viewing opportunities. Trails throughout the refuge take you through seasonally flooded habitat, along ponds and to the edges of the Willamette River.

Did you know...

... that western pond turtles are unable to swallow food in the air and must swallow underwater?



Above/below photos © Ray Foster

... that great blue herons nest in deciduous or evergreen trees, usually near the top on vertical branches. Nests are 25-40 inches in diameter and 12 or more inches thick. A nesting colony of great blue herons is present along the Willamette River at Snag Boat Bend.



# **Managing Habitats**

# Prescribed Burning



Above: Fire crews doing prescribe burning on Baskett Butte

Right: Fire is used to restore oak savanna habitats



Through cooperative agreements with local farmers, refuge fields are planted to grow ryegrass, fescue, corn and pasture mixes. These crops are the preferred food for wintering Canada geese. During the winter months thousands of geese feed on the crops planted by farmers. These farming operations help reduce off- refuge crop damage by migratory birds.

#### Weed Control



Prairie Restoration

Above: Youth Conservation Corps employees remove weeds / USFWS, Matthew Rainey The Willamette Valley National Wildlife Refuge Complex (NWRC) has an active prescribed burning program. The objectives of these burns are to restore and maintain native prairies and oak savannas, enhance populations of threatened or endangered species, improve food crops for Canada geese, and reduce the risks for severe wildfire. Most burning takes place in the late summer or early fall.



# Control of non-native, invasive weeds is an important manager

weeds is an important management operation. Weeds present the single most significant threat to native plant communities and rare species. The refuge uses a combination of mowing, burning, slashing, hand pulling and herbicides to keep weeds in check.

Throughout the refuges, former croplands are in different stages of being restored to native habitats. This process, which takes a number of years, includes clean-up of the fields of weeds and residual crops, site preparation for planting of native species and maintenance of the developing habitats.



No-till seed drill restoring prairie habitat

Water Management



Adjusting water levels on refuge wetlands

Oak Habitat Restoration





The refuges are actively restoring both wetland and upland prairies and are working to enhance existing prairies that have been invaded by shrubs and small trees. The woody vegetation is cut and piled off-site where it is burned. Most treatment areas are selected to provide benefits to threatened and endangered plant species.

Seasonally flooded wetlands require continual management to produce plants favored by waterfowl and other water-birds. Water levels are usually "stage-flooded" in the fall and winter using water control structures that allow variable levels. This helps maximize the food availability for migrating waterfowl. Managed levels are also important in the spring to prevent the establishment of undesirable non-native plants, like reed canary-grass. In the summer, most managed impoundments are dry, a natural cycle that native plants have adapted to.

The suppression of fire following European settlement in the Willamette Valley has dramatically altered oak woodlands and savanna. The refuge complex is selectively restoring these areas by removing invading Douglas fir trees that will

eventually overtop and shade out the oaks. In addition, oak trees and shrubs are thinned in order to maintain an open grassland understory. Management of these sites is accomplished in concert with adjacent prairie habitats and benefits rare species.

Before and after removal of Douglas fir trees /
© Chris Seal

#### **Partners for Fish and Wildlife**



The mission of the U.S. Fish and Wildlife Service (USFWS) is, by working with others, to conserve, protect and enhance fish and wildlife and their habitats for the continuing benefit of the American people. Since 1987, the Service's Partners for Fish and Wildlife program has been accomplishing this mission by offering technical and financial assistance to private landowners to voluntarily restore a variety of fish and wildlife habitats on their land.

Our Focus



Private landowner working with USFWS staff

Large woody

The Partners for Fish and Wildlife program in the Willamette Valley focuses on restoring oak woodland, savanna, grassland, riparian, wetland, and wet prairie habitat and the 22 at risk species, including 11 listed species, which depend on them. These declining habitat types support unique and significant biological diversity yet they are primarily in private ownership.

Our efforts are part of a large-scale restoration initiative to increase awareness of native habitats, restore diversity, contribute to recovery of listed species, benefit key migratory bird habitats, enhance valuable open space and preserve the historic character of the Willamette Valley in a manner compatible with its present day uses.



Wet prairie remnant within Muddy Creek riparian zone / USFWS Jarod Jebousek



Our Partners

The USFWS works with a wide variety of partners to restore wildlife habitat on private lands. These partners include other federal agencies, Tribes, state and local governments, conservation organizations, academic institutions, businesses and industries, school groups and private individuals.

Over 70 percent of our Nation's

Our Invitation

landscape is in private ownership.
The health of our fish and wildlife populations depend on habitat on private lands. To get involved or for further information, contact your nearest National Wildlife Refuge.

Threatened Nelson's checker-mallow



JSFWS

# **Refuge Recreation Activities**

## Refuge Hours

Willamette Valley National Wildlife Refuges welcomes visitors yearround for Day Use Only. Portions of the refuges are closed to public entry to minimize disturbance to wildlife, particularly during the winter waterfowl migration. Refer to specific refuge maps for dates of closure.

Wildlife Observation



Best wildlife viewing times are early and late in the day. Your vehicle makes an excellent blind for viewing animals without disturbing them. During the winter waterfowl closure, please minimize disturbance to wintering geese by observing them from designated viewing areas and hiking trails.

Wildlife Photography



The refuges provide great opportunities to capture wonderful wildlife photos. Wildlife observation blinds are found on the refuges and act as a great concealment to get closer to the wildlife.

Hiking



All three refuges have excellent trails that traverse through various habitats and offer wonderful views. Some areas are seasonally closed to provide sanctuary for migratory waterfowl. All trails are closed to motor vehicles and bikes.

Refuge Facilities





Public restrooms; Refuge information is available at kiosks and overlooks; Refuge headquarters.

Disabled Visitors



Motor Vehicles and Bicycles





Access difficulty varies by area. Consult the refuge office for suggestions to use the area safely.

Motor vehicles and bicycles are permitted only on roads open to public vehicle access. Bicycling is prohibited during the winter waterfowl closure on Finley Refuge Road. Please park only in designated areas.

Auto Tour Routes



The auto tour routes are a wonderful way to experience the refuges. The route at William L. Finley NWR has pull-outs with interpretive signs to read along the way. This is a great way to view wildlife during the rainy winter months. Travel on county roads through Ankeny and Baskett Slough Refuges and get a good look at the wildlife that utilize the wetlands and farm fields from pull-outs and parking lots.

Environmental Education and Interpretation





The refuges provide information and guidance to teachers and educational groups planning to conduct outdoor classroom activities. Throughout the refuges trails, auto tour routes and pull-outs, interpretative panels describe wildlife, plants and habitats.

Pets



For your pet's and refuge wildlife safety, pets are not allowed on refuge trails or roads. Please leash your pets and walk them only at information kiosks and trail head parking areas.

Firearms



Firearms and other weapons are prohibited except as authorized for hunting. Consult the refuge office for further information.

Prohibited Activities









Camping, fires, horseback riding, and cross-country skiing are not allowed on the refuges. Collecting historical objects or artifacts, rocks, stones or mineral specimens is not permitted. Collecting animals and plants is also prohibited. Boating is allowed on Lake Creek at Snag Boat Bend.

National Wildlife Refuge Sign



AREA
BEYOND
THIS
SIGN
CLOSED
Al public entry prohibited

This sign delineates the refuge boundary. You may enter the area only as permitted by refuge regulations.

AreaBeyond This Sign Closed

This area is closed to ALL entry.

Willamette Valley National Wildlife Refuge Complex 26208 Finley Refuge Road Corvallis, Oregon 97333-9533 541/757-7236 http://www.fws.gov/willamettevalley

Federal Relay Service TTY and Voice 1 800/877 8339

**Oregon Relay Service** TTY 1 800/735 2900 Voice 1 800/735 1232 ASCI 1 800/735 0644 SP 1 800/735 3896

U.S. Fish & Wildlife Service http://www.fws.gov

For National Wildlife Refuge Information 1 800/344 WILD

Visitors with disabilities may be reasonably accommodated upon request and/or receive an alternative format publication.

September 2009







Cackling Canada geese browsing on refuge fields / ©Paul Farrel